UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG _____ ELECTRIC LOGS _____ FILE X WATER SANDS _____ LOCATION INSPE _____ SUB. REPORT/abd. _____

DATE FILED JUNE 20, 1995

LAND: FEE & PATENTED STATE LEASE NO. ML-46716 PUBLIC LEASE NO. INDIAN

DRILLING APPROVED: JULY 14, 1995

SPUDDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR.

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: 960926 LOCATION ABANDONED APD EXPIRED EFFECTIVE SEPTEMBER 12, 1996

FIELD: UNDESIGNATED FIELD

UNIT: NA

COUNTY: UINTAH

WELL NO. ATCHEE RIDGE STATE 17-12-25 API NO. 43-047-32707

LOCATION 2138' FNL FT. FROM (N) (S) LINE, 484' FWL FT. FROM (E) (W) LINE. SW NW 1/4 — 1/4 SEC. 17

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
12S	25E	17	AMOCO PRODUCTION CO				

FORM 3

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: ML-46716

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

6. If Indian, Allottee or Tribe Name:

1A. Type of Work: DRILL [X] DEEPEN [ ]

7. Unit Agreement Name:

B. Type of Well: OIL [ ] GAS [X] OTHER: SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. Farm or Lease Name: Atchee Ridge State

2. Name of Operator: Amoco Production Company

9. Well Number: 17-12-25

3. Address and Telephone Number: P.O. Box 800, Denver, Colorado 80201 303-830-6003

10. Field and Pool, or Wildcat: ~~Wildcat~~ UNDESIGNATED

4. Location of Well (Footages)
At Surface: 2138FNL & 484FWL
At Proposed Producing Zone: SW¼ NW¼

11. Qtr/Qtr, Section, Township, Range, Meridian: Sec. 17, T12S-R25E

14. Distance in miles and direction from nearest town or post office: 22 miles from Bonanza, UT

12. County: Uintah

13. State: UTAH

15. Distance to nearest property or lease line (feet):

16. Number of acres in lease: 1600

17. Number of acres assigned to this well: 160 NW/4

18. Distance to nearest well, drilling, completed, or applied for, on this lease (feet):

19. Proposed Depth: 6650'

20. Rotary or cable tools: Rotary

21. Elevations (show whether DF, RT, GR, etc.): 6628' GR

22. Approximate date work will start: July 10, 1995

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	J-55 9 5/8"	36#	400'	252cf
8 3/4"	N-80 7"	23#	5690'	1192cf
6 1/4"	WC75 4 1/2"	11.6#	6650'	150cf

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

Amoco Production Company proposes to drill a well to a depth of 6650' to test the Mancos formation. If productive, casing will be run and the well completed.

All operations will be covered under Amoco's Statewide Bond No. 86-67-68

Lease Description: T12S-R25E:
Sec. 7: S/2S/2;
Sec. 8: S/2S/2;
Sec 17: ALL;
Sec 18: ALL.

RECEIVED
JUN 20 1995
DIV. OF OIL, GAS & MINING

24.

Name & Signature: Julie L. Acevedo Julie L Acevedo Title: Sr. Staff Assistant Date: 6/18/95

(This space for State use only)

API Number Assigned: 43-047-32707

Approval: Associate Director 7/14/95

(1\93) (See Instructions on Reverse Side)

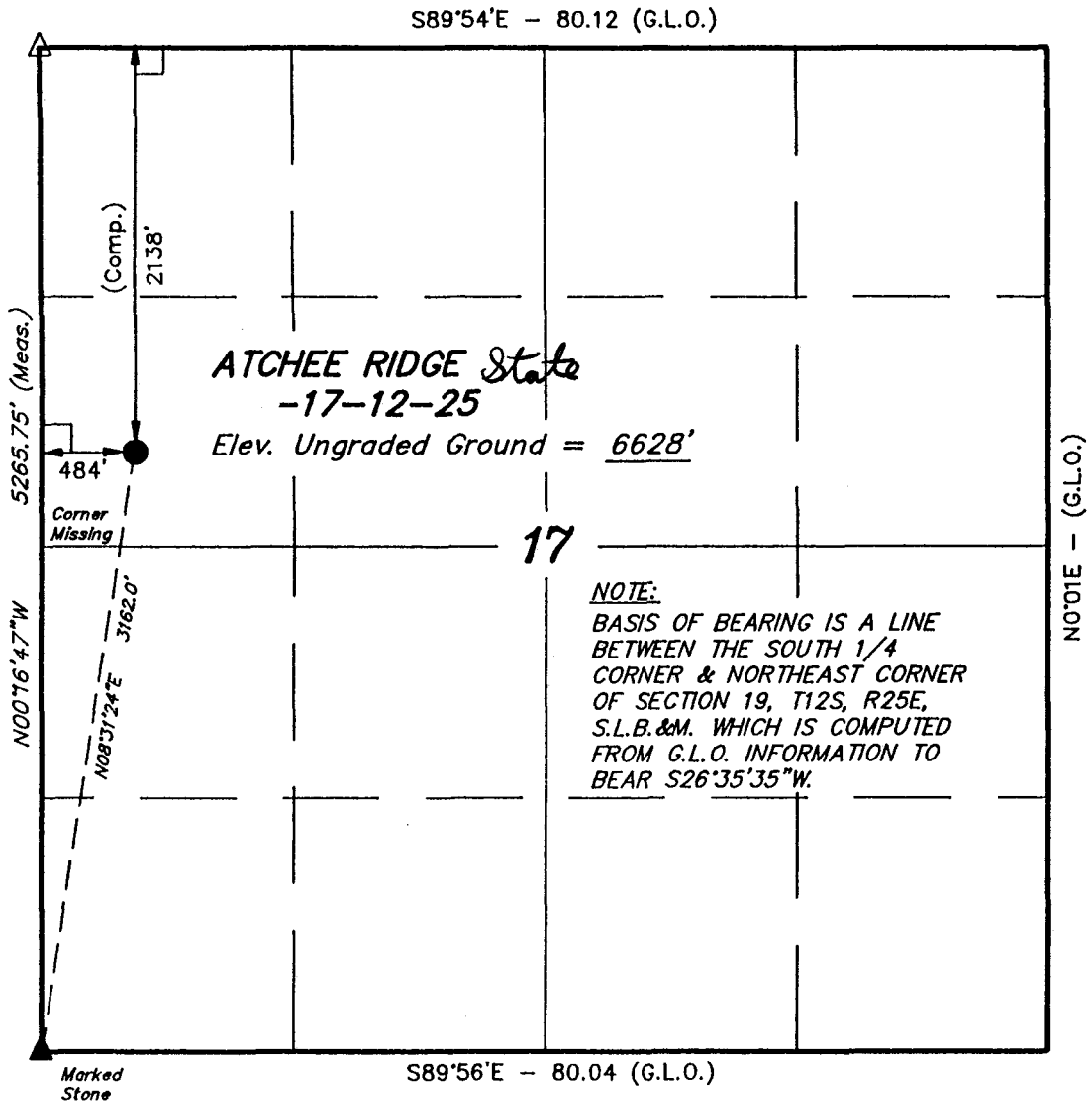
AMOCO PRODUCTION COMPANY

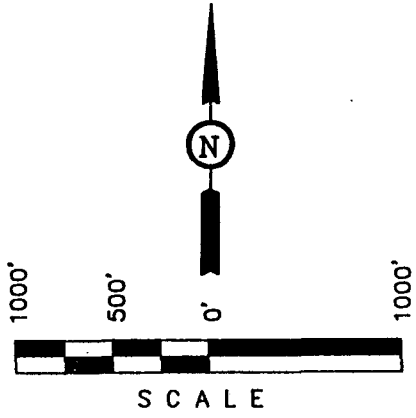
Well location, ATCHEE RIDGE 17-12-25, located as shown in the SW 1/4 NW 1/4 of Section 17, T12S, R25E, S.L.B.&M. Uintah County, Utah.

BASIS OF ELEVATION

TRIANGULATION STATION JEK 13 LOCATED IN SECTION 20, T12S, R25E, S.L.B.&M. TAKEN FROM THE RAINBOW, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6762 FEET.

T12S, R25E, S.L.B.&M.





CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Robert L. Kay

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED USING BEARING TREE INFORMATION (NOT SET ON GROUND)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 3-17-95	DATE DRAWN: 3-30-95
PARTY G.S. J.K. D.R.B.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE AMOCO PRODUCTION CO	

STATE OF UTAH
DIVISION OF OIL, GAS & MINING (OGM)

ON-SITE PREDRILL EVALUATION AND REVIEW

OPERATOR: AMOCO PRODUCTION COMPANY

WELL NO: ATCHEE RIDGE STATE 17-12-25 LEASE NO: ML-46716

API NUMBER: 43 - 047 - 32707 LEASE TYPE: STATE X FEE ____
PROPOSED LOCATION: **C O N F I D E N T I A L**

SURFACE: 2138 FNL 0484 FWL

SURFACE: QTR/QTR: SWNW SEC: 17 TWP: 12S RNG: 25E

BOTTOM HOLE: 2138 FNL 0484 FWL

BOTTOM HOLE: QTR/QTR: SWNW SEC: 17 TWP: 12S RNG: 25E

COUNTY: UINTAH FIELD: CODE/NAME: UNDESIGNATED

GPS COORDINATES: 4404495 N 658600 E

SURFACE OWNER: STATE OF UTAH SURFACE AGREEMENT(Y/N): ____

LOCATION AND SITING:

Y Plat	___ R649-2-3. Unit: _____
Y Bond Sta Y Fee___	Y R649-3-2. General
Number: 86-67-68	___ R649-3-3. Exception
N Potash (Y/N)	___ UCA 40-6-6. Drilling Unit
N Oil Shale (Y/N)	Cause No: _____
Y Water Permit 49-1550	Date: _____
Y RDCC Review _____	

ARCHEOLOGICAL AND PALEONTOLOGY SURVEY RECEIVED: (Y/N) NO

SITE PROBLEMS: NONE SITED

Onsite Participants: DAVID HACKFORD (DOGM), BENNY BENFIELD (AMOCO, GARY STREETER (UINTAH ENGINEERING AND LAND SURVEY).

Regional Setting/Topography: SITE IS ON TOP OF A RIDGE RUNNING SOUTH TO NORTH WITH STEEP SLOPES TO THE EAST AND WEST. GROUND SLOPES TO THE WEST.

DRILLING PROGRAM:

1. Surface Formation and Estimated Tops/Geologic Markers

GREEN RIVER	13′
WASATCH	1740′
MESAVERDE	3140′
CASTLEGATE	5140
MANCOS SHALE	5500′
MANCOS "B" sand	5940′

2. Estimated Depths of Anticipated Water, Oil, Gas or other Mineral Bearing Zones

Substance	Formation	Depth
Oil/Gas	WASATCH	1740′
Gas	MESAVERDE	3140′
Gas	CASTLEGATE	5140
Gas	MANCOS B SAND	5940′

All fresh water sands encountered during drilling shall be recorded and reported to the Division on Form 7.

3. Well Control Equipment & Testing Procedures
3000 PSI. EQUIPMENT AND NO HYDRIL. SEE APD

4. Proposed Casing and Cementing Program
IF HOLE CAN BE DRILLED WITH AIR AND NO WATER FLOWS 5.5" CASING WILL BE SET TO TD; HOWEVER, IF HOLE GETS WET 7" INTERMEDIATE STRING WILL BE SET WITH 4.5" LINER. CEMENT FOR LEAD ON 1ST AND 2ND STAGES IS 10.1 PPG AND I HAVE ASKED AMOCO FOR COME COMPRESSIVE STRENGTH DATA.

5. Mud Program and Circulating Medium - include mud components and weights, when drilling with air also include length and location of blooie line
AIR/AIR MIST/ AERATED MUD DEPENDING ON HOLE CONDITIONS.

6. Coring, Logging, and Testing Program
HIGH RESOLUTION INDUCTION DFL.
SPECTRAL DENSITY
EPITHERMAL NEUTRON
4-ARM CALIPER
SP WILL BE RUN IF HOLE CONTAINS MUD.

7. Abnormal Conditions, Bottom Hole Pressures and Potential Hazards, also list anticipated lost circulation zones, abnormal temperature zones and possible hydrogen sulfide bearing zones
NO ABNORMAL TEMPERATURE, PRESSURE, OR HYDROGEN SULFIDE GAS IS ANTICIPATED.

SURFACE USE PLAN:

Current Surface Use: LIVESTOCK AND WILDLIFE GRAZING. FIREWOOD CUTTING.

Proposed Surface Disturbance:
LOCATION WILL BE 165' WIDE AND 325' LONG WITH A RESERVE PIT OF 165'X75'. 5.6 MILES FROM RAINBOW. BLM HAS ASKED AMOCO TO PUT TREES AND SLASH ON SOUTH SIDE OF RESERVE PIT NEXT TO MAIN ROAD, SO THE PUBLIC WILL HAVE ACCESS TO THE TREES PUSHED OFF OF THE LOCATION DURING CONSTRUCTION FOR FIREWOOD?

1. Existing Roads

2. Planned Access Roads - include length of new road, length of existing road to be upgraded, maximum disturbed and travel surface widths, maximum grades, turnouts, surface materials, drainage, cattleguards
New road will be constructed from the main road 150' to the location.

3. Location of existing wells within one-mile radius of proposed location, include water, injection, producing, drilling with present status of each well
NONE

4. Location of Production Facilities and Pipelines
ON DRILLING SITE

5. Location and Type of Water Supply (include Division of Water Rights approval or identifying number)
WATER WILL BE OBTAINED FROM A PRIVATELY PERMITTED WATER SOURCE SECURED THROUGH A CONTRACT WATER HAULING COMPANY. IT WILL BE HAULED IN VACUUM TRUCKS VIA THE ACCESS ROAD. THE APPROPRIATE PERMITS FOR THIS ACTIVITY HAVE BEEN OBTAINED BY THE WATER TRANSPORTER.

6. Source of Construction Material
NONE NEEDED

7. Waste Management Plan
CUTTINGS, DRILLING FLUIDS, AND PRODUCED FLUIDS WILL BE CONTAINED IN THE RESERVE PIT AND BE ALLOWED TO EVAPORATE. THE RESERVE PIT WILL BE FENCED ON THREE SIDES AND THE 4TH SIDE WILL BE FENCED UPON REMOVAL OF THE RIG. THE PITS WILL BE ALLOWED TO SIT FOR 1 YEAR TO DRY AND THEN PULLED AS REQUIRED. PRODUCED WATER WILL BE DISPOSED OF AT AN APPROVED INJECTION WELL OR AN EVAPORATION SITE. SANITARY FACILITIES AND A STEEL MESH PORTABLE TRASH CONTAINER WILL REMAIN ON LOCATION THROUGHOUT DRILLING OPERATIONS AND WILL THEN BE REMOVED TO A DESIGNATED DISPOSAL AREA. THE WELL SITE WILL BE PROPERLY CLEANED UP UPON REMOVAL OF THE RIG.

8. Ancillary Facilities
NONE REQUIRED AT THIS TIME.

9. Well Site Layout
See Diagram in the APD.

10. Surface Restoration Plans
RESTORATION OF THE SURFACE WILL BE CONDUCTED AFTER THE RESERVE PIT HAS DRIED. THE PIT WILL THEN BE CLEANED UP AND BACK FILLED AND THE ENTIRE DISTURBED AREA WILL BE RE-CONTOURED. THE TOPSOIL STOCKPILE WILL THEN BE UNIFORMLY PLACED OVER THIS AREA AND RESEEDING OF THE SITE WILL BE CARRIED OUT AS INSTRUCTED BY THE APPROPRIATE MANAGEMENT AGENCY. METHODS TO PROTECT AGAINST EROSION WILL BE EMPLOYED. AFTER FINAL ABANDONMENT, ADDITIONAL RESTORATION EFFORTS WILL BE APPLIED.

ENVIRONMENTAL PARAMETERS:

Affected Floodplain and/or Wetlands:
Is a 404 dredge and fill permit required? (Any activity which will change the bottom elevation of the "waters of the United States" including Wetlands, natural and artificially created waters, and even some drainages may require a permit from the Army Corps of Engineers) NO FLOODPLAINS OR WETLANDS WILL BE AFFECTED BY THIS SITE OR THE ACCESS ROAD.

Flora/Fauna:
Briefly describe the flora found on the proposed site and the fauna evidenced or sighted on or near the proposed location PINION, JUNIPER, OAKBRUSH, SAGE, NATIVE GRASSES, WILDFLOWERS. DEER, ELK, SMALL RODENTS, REPTILES, RAPTORS, SONGBIRDS, RABBITS.

SURFACE GEOLOGY

Soil Type and Characteristics: LIGHT PINK SHALEY SANDY LOAM.

Surface Formation & Characteristics: GREEN RIVER FORMATION. GRAY SHALE AT SURFACE.

Erosion/Sedimentation/Stability: NO SIGN OF EROSION OR SEDIMENTATION AT PRESENT. SHOULD NOT BE A PROBLEM.

Paleontological Potential Observed: NONE OBSERVED.

RESERVE PIT

Characteristics: PROPOSED RESERVE PIT WILL BE RECTANGULAR IN SHAPE WITH APPROXIMATE DIMENSIONS OF 165' BY 75' AND 10' DEEP. PIT WILL BE CONSTRUCTED ENTIRELY IN CUT SOUTHEAST OF WELLBORE.

Lining (Site ranking form attached): A 12 MIL SYNTHETIC LINER WILL BE REQUIRED.

OTHER OBSERVATIONS

Cultural Resources/Archaeology (if proposed location is on State land, has an archaeology clearance been obtained?): AN APPROVED CONTRACT ARCHAEOLOGIST WILL SEND AN ARCHEOLOGIST'S REPORT TO ALL APPROPRIATE MANAGEMENT AGENCIES. (Carl Conners of the Grand River Institute, Grand Junction Colorado)

Comments:

DAVID W. HACKFORD — 7/3/95 3:30 PM

OGM Representative — Date and Time

OGM Review of Ap~~STATEMENTS OF BASIS~~t to Drill (APD)

ENGINEERING/LOCATING and SITING:

THE PROPOSED LOCATION MEETS THE LOCATING AND SITING REQUIREMENTS OF R649-3-3. PROPOSED CASING, CEMENTING, AND DRILLING PLAN APPEAR TO BE CONSISTENT WITH ACCEPTED INDUSTRY STANDARDS. A CASING DESIGN SAFETY CHECK IS ATTACHED. BLOW OUT PREVENTION MONITORING AND CONTINGENCY PLANS ARE ADEQUATE.

Signature F. R. MATTHEWS Date 7/5/95

GEOLOGY/GROUND WATER:

The surface geology at the proposed well is the Green River Formation. Water may be encountered throughout the Green River Formation. The proposed casing and cement program will adequately protect any underground source of drinking water.

Signature D. Jarvis Date 7-12-95

SURFACE:

THE PRE-SITE INVESTIGATION OF THE SURFACE HAS BEEN PERFORMED BY FIELD PERSONNEL. THE PROPOSED PLAN FOR CONSTRUCTION OF THE LOCATION APPEARS TO BE ENVIRONMENTALLY SOUND.

Signature DAVID HACKFORD Date 7/3/95

STIPULATIONS for APD Approval:

1. The Reserve pit shall be lined with a 12 mil minimum thickness liner. The liner will have a proper smooth supportive foundation. Level 1 ranking.

ATTACHMENTS:
PICTURES ARE AVAILABLE

Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements

Site-Specific Factors	Ranking Score	Final Ranking Score
Distance to Groundwater (feet)		0
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	
Distance to Surf. Water (feet)		0
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	
Distance to Nearest Municipal Well (feet)		0
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	
Distance to Other Wells (feet)		0
>1320	0	
300 to 1320	10	
<300	20	
Native Soil Type		20
Low permeability	0	
Mod. permeability	10	
High permeability	20	

Fluid Type Air/mist Fresh Water TDS >5000 and <10000 TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents	 0 5 10 15 20	10
Drill Cuttings Normal Rock Salt or detrimental	 0 10	0
Annual Precipitation (inches) <10 10 to 20 >20	 0 5 10	0
Affected Populations <10 10 to 30 30 to 50 >50	 0 6 8 10	0
Presence of Nearby Utility Conduits Not Present Unknown Present	 0 10 15	0

Final Score	30

The summation of all of the above ranking scores will yield one value which shall be used to determine the appropriate type of containment, on a case-by-case basis. The sensitivity levels are as follows:

Level I Sensitivity: For scores totaling ≥20
Level II Sensitivity: For scores totaling 15 to 19
Level III Sensitivity: For scores totaling <15

Containment Requirements According to Sensitivity Level

Level I: Requires total containment by synthetic liner, concrete structure or other type of total containment structure or

material.

Level II: Bentonite or other compatible lining is discretionary depending on the fluid to be contained and environmental sensitivity.

Level III: No specific lining requirements.

OTHER GUIDELINES FOR PITS

1. Unlined pits shall not be constructed on areas of fill materials.

2. A pit shall not be constructed in a drainages or floodplain of flowing or intermittent streams.

3. Synthetic liners used for lining reserve pits, shall be of 12 mil thickness or greater and shall be compatible with the fluid to be contained. Synthetic liners used for lining Onsite pits with a longer expected life shall be a minimum of 30 mil thickness or as approved by the Division.

4. Synthetic liners shall be installed over smooth fill material which is free of pockets, loose rocks or other materials which could damage the liner.

5. Monitoring systems for pits or closed mud systems may be required for drilling in sensitive areas.

FRMH

STATE ACTIONS

Mail to:
RDCC Coordinator
116 State Capitol
Salt Lake City, Utah 84114

1. ADMINISTERING STATE AGENCY
OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

2. STATE APPLICATION IDENTIFIER NUMBER:
(assigned by State Clearinghouse)

3. APPROXIMATE DATE PROJECT WILL START:
Upon approval

4. AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS:
(to be sent out by agency in block 1)
Uintah Basin Association of Governments

5. TYPE OF ACTION: /_/ Lease /X/ Permit /_/ License /_/ Land Acquisition
/_/ Land Sale /_/ Land Exchange /_/ Other _____

6. TITLE OF PROPOSED ACTION:
Application for Permit to Drill

7. DESCRIPTION:
Amoco Production Company proposes to drill the Atchee Ridge State #17-12-25 well (wildcat) on state lease ML-46716, Uintah County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.

8. LAND AFFECTED (site location map required) (indicate county)
SW/4 NW/4, Section 17, Township 12 South, Range 25 East, Uintah County, Utah

9. HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?

10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:
Degree of impact is based on the discovery of oil or gas in commercial quantities.

11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:

12. FOR FURTHER INFORMATION, CONTACT:
Frank R. Matthews
PHONE: 538-5340

13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL:
DATE: 6-28-95 Petroleum Engineer

WOI187

UT 950630-020

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
Robert G. Valentine
Division Director

Northeastern Region
152 East 100 North
Vernal, UT 84078-2126
801-789-3103
801-789-8343 (Fax)

July 12, 1995

Utah Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center
Salt Lake City, UT 84180-1203

Subject: Applications for Permit to Drill (Atchee Ridge State #17-12-25, Utah-Colo-Oil Corp. #25-12-25, Texas Creek #14-22, State #2-13-25)(State Actions #UT950630-020, 030, 040, 050 respectively)

Dear Sirs:

The Utah Division of Wildlife Resources has reviewed the subject APD's and offers the following recommendations.

Recent studies have shown that prudent access management can have beneficial effects to big game populations by providing or safeguarding security/escape cover for deer and elk. The protection of these cover types results in higher survivability and a greater proportion of mature male animals without drastically increasing total population size. We are concerned that the proliferation of new access roads associated with new locations will allow increased public access and would request that new roads be gated and locked during the big game hunting seasons.

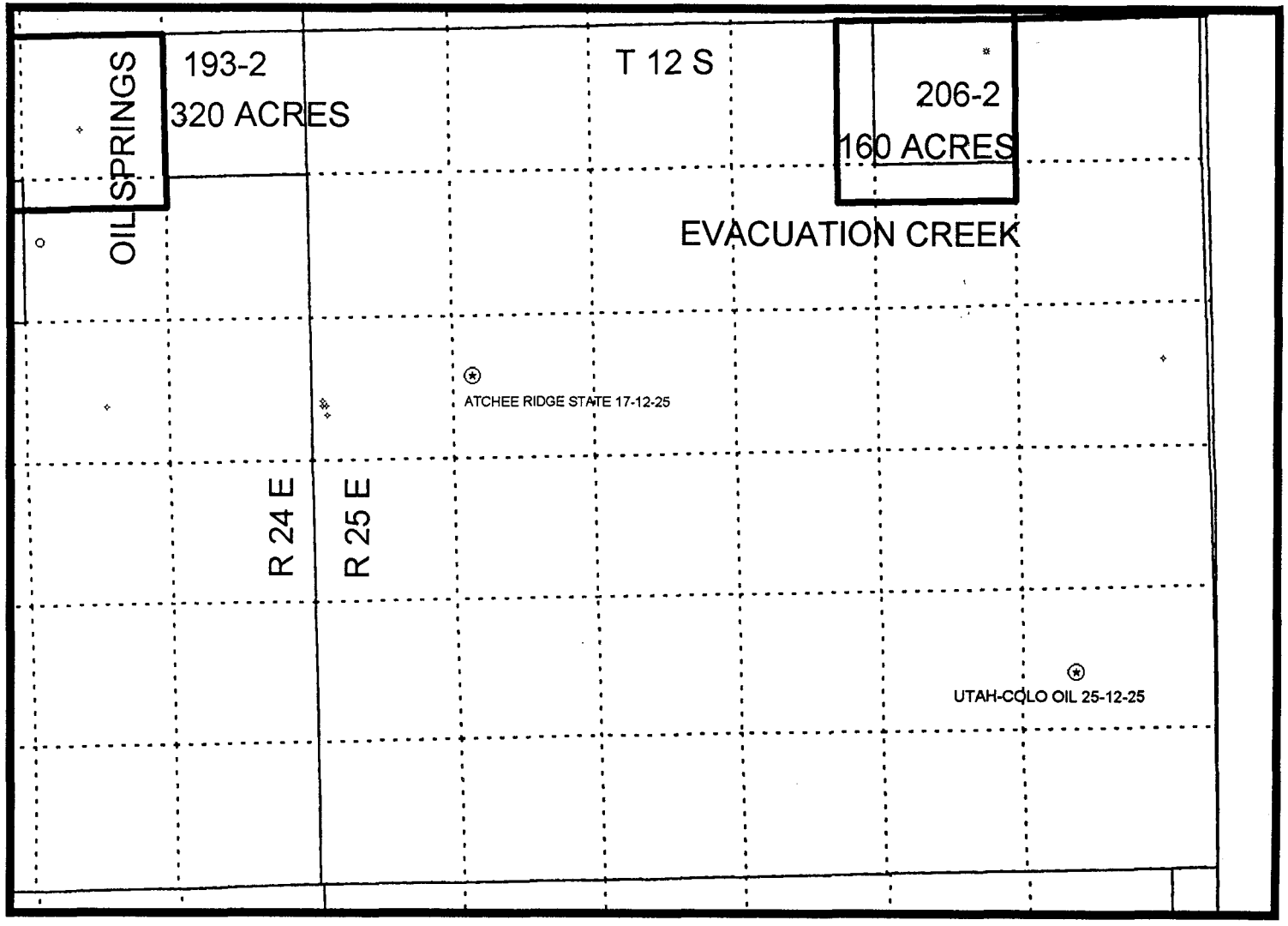
We would also request that new access roads and locations be rehabilitated and reseeded immediately after site abandonment.

Thank you for the opportunity to comment and your concern for Utah's wildlife.

Sincerely,

Walt Donaldson
Regional Supervisor

AMOCO PRODUCTION CO.
EXPLORATORY DRILLING
UINTAH COUNTY, NO SPACING



STATE OF UTAH
DIVISION OF OIL, GAS & MINING

DATE: 06/21/95

Amoco Pre-site

Archer Ridge State

17-12-25

43-047-32707

Amoco Pre-site

Atchee Ridge State 17-12-25

43-047-32707

Looking North

Amoco Pre-Site

Atchee Ridge State 17-12-25

43-047 32707

Looking South

Amoco Pre-site

Archee Ridge State 17-12-25

43-047 32707

Looking East

Amoco Pre-site

Atchee Ridge State 17-12-25

43-047-32707

Looking West

AMOCO PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM

FINAL COPY

Lease:		Well No.	**Atchee Ridge 17-12-25**	File No.:	ATCHE_17.XLS
County:	UINTAH, UTAH	Location:	**2138 FNL, 484 FWL, S 17, T12S, R25E**	Date:	6/13/95
Former name:		Field:	**Atchee Ridge Mancos "B** 25 12		

OBJECTIVE: Exploit Mancos "B" Formation

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 - TD

LOGGING PROGRAM

TYPE	DEPTH
High Resolution Induction DFL	
Spectral Density	SFC--ICP--TD
Epithermal Neutron	
4-arm caliper	
SP *	

REMARKS:
* SP will only be run if hole contains mud
Logging program will be serviced by Halliburton

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Actual GL---------Estimated KB	6628	6641
Marker	Depth (ft.)	SS Elev. (ft.)
Green River	13	6,628
Wasatch*	1,740	4,901
Mesaverde*	3,140	3,501
Castlegate*	5,140	1,501
Mancos Shale	5,500	1,141
Mancos "B" Sand**	5,940	701
Base of Mancos "B"	6,440	201
TOTAL DEPTH	6,650	-9

* Possible pay
**Probable completion
GREEN RIVER, WASATCH & MESAVERDE
POSSIBLE USEABLE WATER

SPECIAL TESTS

TYPE	DEPTH INTERVAL, ETC
None	

Remarks:

DRILL CUTTING SAMPLES

FREQUENCY	DEPTH
None	**10'

DRILLING TIME

FREQUENCY	DEPTH
Geograph	0 - TD

Remarks:
Mud Logging Program: Rocky Mtn. Geo-Engineering
Coring Program: None

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt.	W/L, cc's/30 min.
0------SCP	SPUD	8.5--9.0	Sufficient to clean hole.*	NC
SCP---ICP	Air/Air-mist/Aerated Mud	1.0--8.5**	Suff. to clean hole and maintain integrity f/ logs.	>10
ICP---TD	Air***	N/A		

REMARKS:
* Probable to set surface with "dry-hole digger".
** Attempt to maintain a minimum underbalance to readily detect gas shows.
***Should the intermediate hole not produce water and/or gas in sufficient quantities to interfere with drilling the Mancos "B" sand dry; no intermediate casing will be run, the hole will be drilled to TD with an air-air/mist circulating medium and 5 1/2" casing will be set and cemented. The cementing program will have adequate strength to protect the water sands and to test any upper prospective gas/oil shows.

CASING PROGRAM:

Casing String	Estimated Depth (KB)	Liner Top	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor					
Surface	400		9 5/8"	12 1/4 "	1,2
Intermediate	5,690		7 "	8 3/4"	1,2,3
Production Liner	6,650	5455	4 1/2"	6 1/4"	4

Remarks:
1. Circulate cement to surface.
2. Piceance Basin Drilling Team to design cement programs.
   a. Cement will be circulated to surface utilizing stage tools or reverse circulation method if necessary.
   b. Cement will have adequate strength to protect water sands and to perforate and test any upper prospective gas/oil shows.
3. Casing set 250' Above Top of Mancos "B" .
4. Liner top set 235' above intermediate landing point and cement will be circulated to liner top.

GENERAL REMARKS:

Piceance Basin Completion Team to design completion program.

Form 46 Reviewed by: Logging program reviewed by:

PREPARED BY:	APPROVED:	APPROVED:
Bilyeu/Feldcamp/Kendrick		
Form 46 7-84bw	For Production Dept	For Exploration Dept.

AMOCO PRODUCTION COMPANY

Cementing Procedure/form 46

Well Name: **Atchee Ridge 17-12-25** 2138 FNL, 484 FWL, S 17, T12S, R25E Atchee Ridge Mancos "B"

Amoco proposes to drill the well to develop the Mancos "B" reservoir.
The well will be drilled to the surface casing point and casing set utilizing a "dry-hole digger".
The well will then be drilled to the intermediate casing point with an air/air-mist/aerated water/non-dispersed mud system.
The production hole will be drilled with air through the Mancos "B" Sand.

Surface Casing:

Depth (ft)	Size (in)	Description	Cement program
400	9 5/8"	36#, J-55, STC	251 cf Type 5 Halliburton Cement, 2% CaCl2 + 0.25 #/sx Flocele. 1.15 cf/sx, 15.8 ppg

Hole Size: 12 1/4 " Excess cement: 100% (150% excess if boulders or drilling losses occur) **218 sacks**

Intermediate Casing:

Depth (ft)	Size (in)	Description	Cement program
5690	7 "	23#, N-80, LTC	* 2 stage
		*1st Stg lead	cf 50/50 Type 5 Halliburton Cement/Blended Silicalite w/ 4% Gel (total) 1.0% EX-1, 0.4% Halad-344, 4% CaCl2, & 0.5 #/sk Flocele 4.4 cf/sx, 10.1 ppg. **-1 sacks**
		* 1st Stg Tail:	204 cf 50/50 Type 5 Halliburton Cement/Blended Silicalite w/ 2.0% Gel (total), 0.5% Versaset, 0.4% Halad-344, 2.0% CaCl2, & 0.25#/sk Flocele 2.04 cf/sx, 12.0 ppg.
Top of upper Castlegate Sand	5140	ft	**100 sacks**
Stage tool depth	4740	ft, 400' above top of upper Castlegate Sand.	
		* 2nd Stg Lead:	776 cf 50/50 Type 5 Halliburton Cement/Blended Silicalite w/ 4% Gel (total) 1.0% EX-1, 0.4% Halad-344, 4% CaCl2, & 0.5 #/sk Flocele 4.4 cf/sx, 10.1 ppg. **176 sacks**
		* 2nd Stg Tail:	204 cf 50/50 Type 5 Halliburton Cement/Blended Silicalite w/ 2.0% Gel (total), 0.5% Versaset, 0.4% Halad-344, 2.0% CaCl2, & 0.25#/sk Flocele 2.04 cf/sx, 12.0 ppg.

Hole size: 8 3/4" Excess cement: 40% (60% + 5-10 #/sk of gilsonite if drilling losses occur) **100 sacks**

Production Casing (LINER):

Depth (ft)	Top of Liner	Size (in)	Description	Cement program
6650	5455	4 1/2"	11.6#, WC75, LTC	
* 1st Stg Tail:				149 50/50 Type 5 Halliburton Cement/Poz A w/ 2.0% Gel (total), 5#/sk Gilsonite, 0.4% Halad-344, 10% NaCl2 (bwow), 0.25 #/sk Flocele 1.32 cf/sx, 13.8 ppg. **113 sacks**

Hole size: 6 1/4" Excess cement: 25% (50% if drilling losses occur or no cement job - open hole completion)

Note: If caliper logs are run, utilize caliper volume per AMOCO DOC specifications.

BY: BILYEU/PEISER/KENDRICK 06/13/95

PICEANCE BASIN
MANCOS "B" FORMATION
PRESSURE CONTROL EQUIPMENT
WITH NO INTERMEDIATE CASING

Background

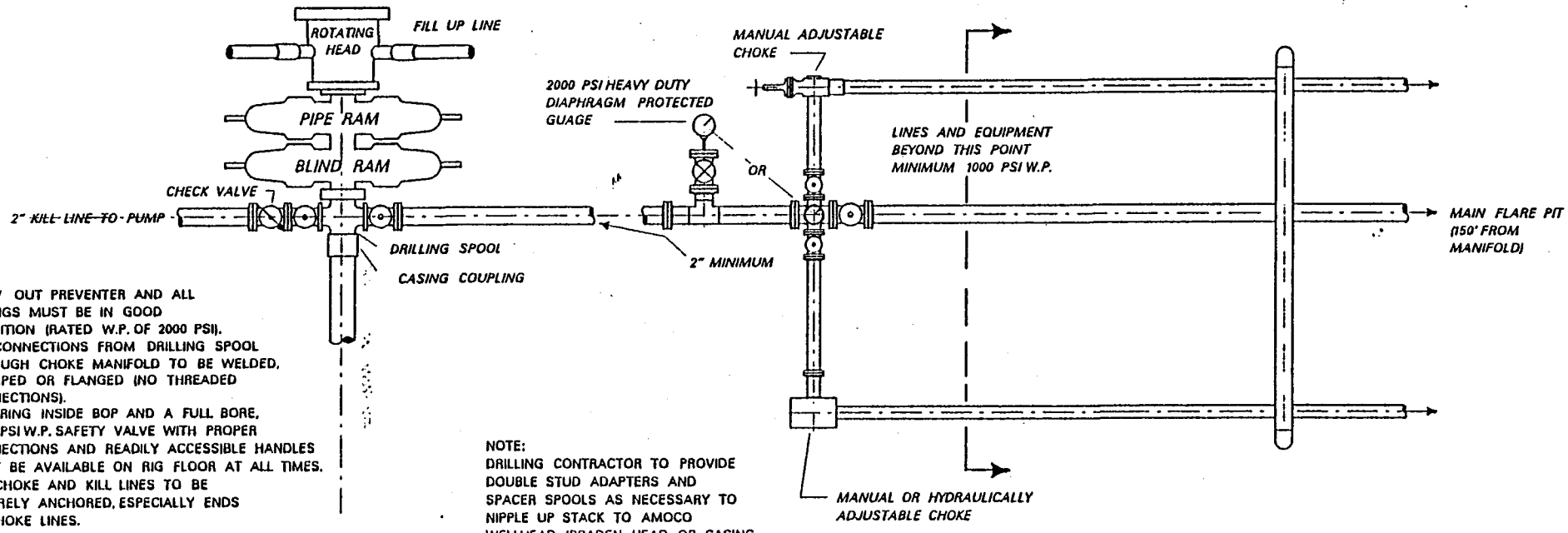
The objective Mancos "B" formation bottom hole pressure is estimated to be approximately 0.2 psi/ft with a maximum surface pressure of less than 1,000 psig based on shut-in surface pressures from wells in the region. Pressures of any of the other possible producing zones are estimated to be less than 0.3 psi/ft based on studies of the region; resulting in less than 1,000 psi surface shut-in pressure. Pressure control equipment working pressure minimum requirements are therefore 2,000 psi. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2,000 psi system per Federal Onshore Order No. 2. Due to the available conventional equipment within the area, 3,000 psi rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rigs to be utilized have substructure height limitations which exclude use of an annular preventer; therefore a rotating head will be installed above these rams. A blooie line, gas buster and choke manifold will be efficiently installed to allow switching from air/mist to an aerated system should water flows occur. This pressure control equipment will be utilized for the proposed air, air/mist or aerated water drilling below surface casing to Total Depth. No abnormal temperature, pressure or Hydrogen Sulfide gas is anticipated.

Equipment Specification

Interval	BOP Equipment
Below surface casing to total depth	11" or 9", 3,000 psi double ram preventer with rotating head

All ram preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 2,000 psi (high pressure) upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP Equipment will include kelly cock, floor safety valve with appropriate handles stored in readily available areas and the choke manifold. This equipment will also be tested to the equivalent pressures at the those intervals as specified above.

MINIMUM BLOW-OUT PREVENTER REQUIREMENTS
7 1/16", 9" OR 11" (NOMINAL) 2,000 PSI W.P.
Typical Mancos "B" /Dakota Air /Mud (SRBU)

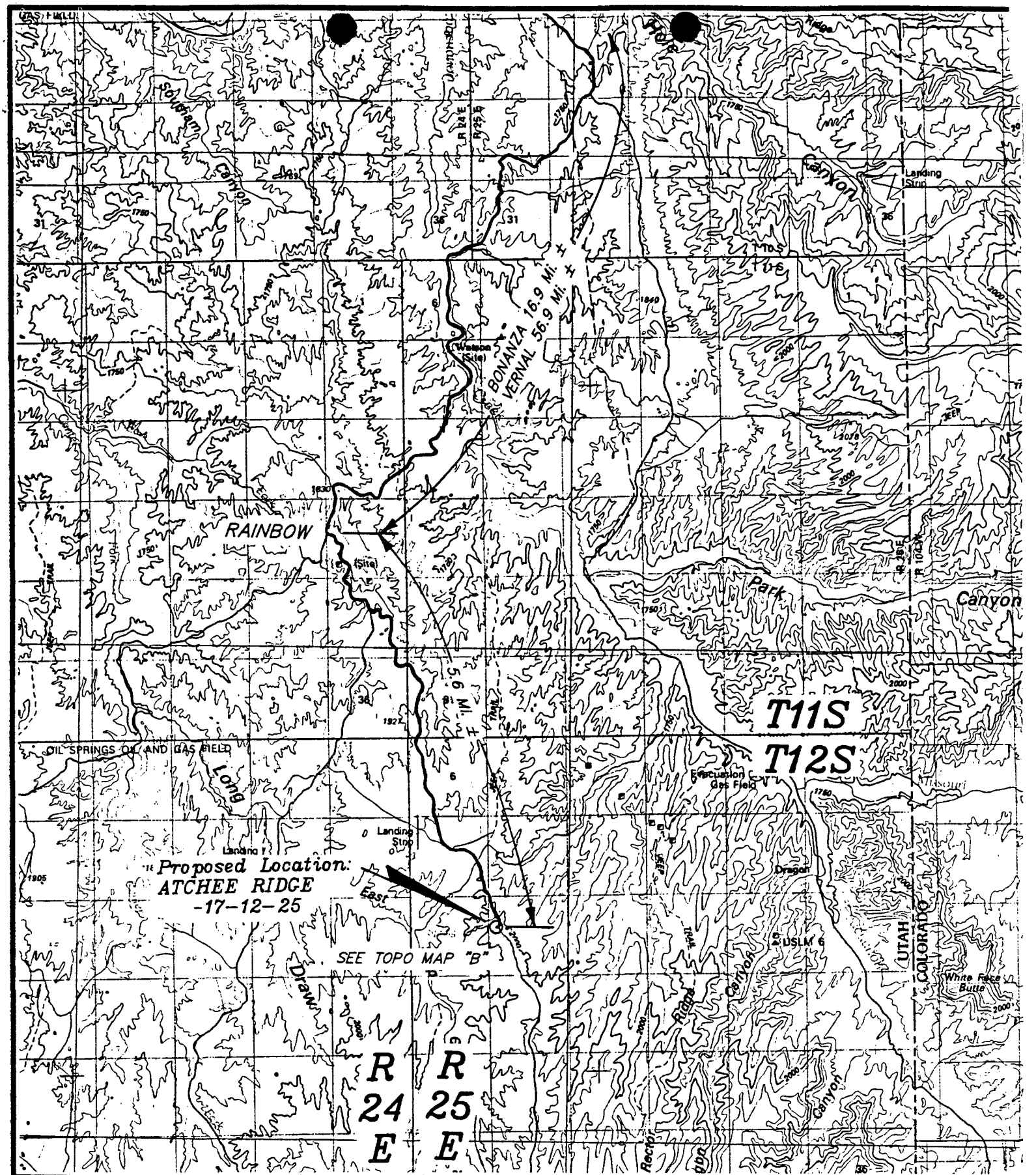


NOTE:
1. BLOW OUT PREVENTER AND ALL FITTINGS MUST BE IN GOOD CONDITION (RATED W.P. OF 2000 PSI).
2. ALL CONNECTIONS FROM DRILLING SPOOL THROUGH CHOKE MANIFOLD TO BE WELDED, CLAMPED OR FLANGED (NO THREADED CONNECTIONS).
3. A STRING INSIDE BOP AND A FULL BORE, 2000 PSI W.P. SAFETY VALVE WITH PROPER CONNECTIONS AND READILY ACCESSIBLE HANDLES MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES.
4. ALL CHOKE AND KILL LINES TO BE SECURELY ANCHORED, ESPECIALLY ENDS OF CHOKE LINES.
5. KILL LINE MUST BE CONNECTED AT ALL TIMES.
6. EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AS LARGE AS INSIDE DIAMETER OF THE CASING BEING DRILLED THROUGH.
7. MUST HAVE UPPER AND LOWER KELLY COCK ON KELLY.
8. BLOW-OUT PREVENTER CLOSING EQUIPMENT SHALL HAVE SUFFICIENT CAPACITY TO FULFILL REQUIREMENTS OF CURRENT FEDERAL REGISTER (43 CFR) DATED NOV. 1988.
9. NO COLLECTOR BOTTLES, SURGE TANKS OR BUFFER CHAMBERS DOWNSTREAM OF THE CHOKE MANIFOLD.
10. ALL TURNS TO BE MADE WITH TARGETED TEES (18-24" MIN.). NO BENDS OR SWEEPS IN LINE FROM BOP TO CHOKE MANIFOLD.
11. IF A FLEXIBLE HOSE IS TO BE USED AS A CHOKE LINE, IT MUST BE APPROVED BY AMOCO PRIOR TO RIGGING UP.
12. LOCK TO BE INSTALLED ON BLIND RAM CONTROL.

NOTE:
DRILLING CONTRACTOR TO PROVIDE DOUBLE STUD ADAPTERS AND SPACER SPOOLS AS NECESSARY TO NIPPLE UP STACK TO AMOCO WELLHEAD (BRADEN HEAD OR CASING SPOOL).

NOTE:
1. ALL UNMARKED VALVES TO BE FULL-OPENING GATE OR PLUG VALVES, METAL TO METAL SEAL, 2000 PSI W.P.

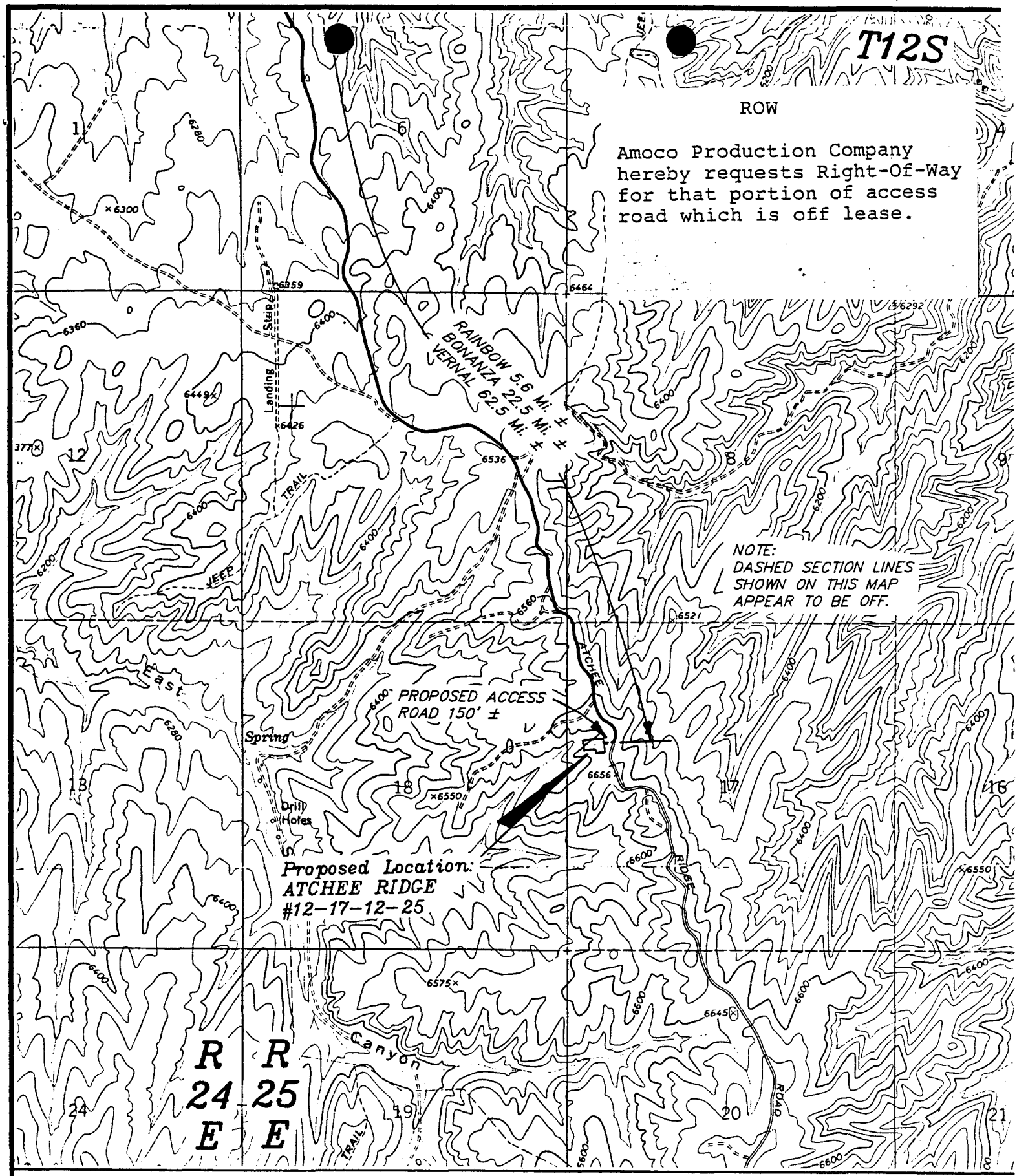
NOTE:
1. CHOKE ASSEMBLY VERTICAL FOR ILLUSTRATION ONLY. SHOULD BE HORIZONTAL ON RIG. ANCHOR ALL LINES SECURELY EVERY 30' AND WITHIN 5' OF END OF LINE.
2. DRILLING CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING ALL LINES AND VALVES.



TOPOGRAPHIC
MAP "A"
DATE: 3-30-95 D.R.B.

N

AMOCO PRODUCTION COMPANY
ATCHEE RIDGE 17-12-25
SECTION 17, T12S, R25E, S.L.B.&M.
2138' FNL 484' FWL



TOPOGRAPHIC MAP "B"

SCALE: 1" = 2000'

DATE: 3-30-95 D.R.B.

N

AMOCO PRODUCTION COMPANY

ATCHEE RIDGE 17-12-25

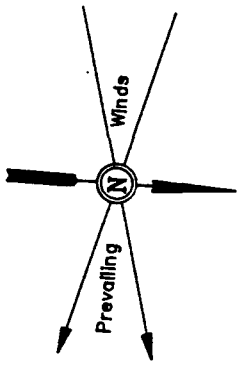
SECTION 17, T12S, R25E, S.L.B.&M.

2138' FNL 484' FWL

AMOCO PRODUCTION COMPANY

LOCATION LAYOUT FOR

ATCHEE RIDGE -17-12-25
SECTION 17, T12S, R25E, S.L.B.&M.
2138' FNL 484' FWL



SCALE: 1" = 50'
DATE: 3-30-95
DRAWN BY: D.R.B.

NOTE:
Flare Pit is to be located a min. of 100' from the Well Head.

F-1.0'
El. 621.5'

F-3.7'
El. 618.8'

F-23.2'
El. 599.3'

Sta. 3+25

Topsoil Stockpile

DATA

Round Corners as needed

Approx. Top of Cut Slope

175'

CATWALK

Flare Pit

PIPE RACKS

Approx. Toe of Fill Slope

C-14.7'
El. 627.2'
(Btm. Pit)

C-8.1'
El. 630.6'

C-5.2'
El. 627.7'

C

15'

40'

RIG

DOG HOUSE

125'

Sta. 1+50

75'

MUD TANKS

150'

WATER

F-12.2'
El. 610.3'

TRAILER

Pit Capacity With 2' of Freeboard is ± 12,000 Bbls.

PUMP

MUD SHED

TOILET

165'

HOPPER

POWER

FUEL

TOOLS

FUEL

STORAGE TANK

Topsoil Stockpile

RESERVE PITS (10' Deep)

Sta 0+15

TRASH

AIR PACKAGE

Sta. 0+00

Reserve Pit Backfill & Spoils Stockpile

C-24.7'
El. 637.2'
(Btm. Pit)

Topsoil Stockpile

C-9.6'
El. 632.1'

C-5.9'
El. 628.4'

C-1.2'
El. 623.7'

Proposed Access Road

Elev. Ungraded Ground at Location Stake = 6627.7'

Elev. Graded Ground at Location Stake = 6622.5'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

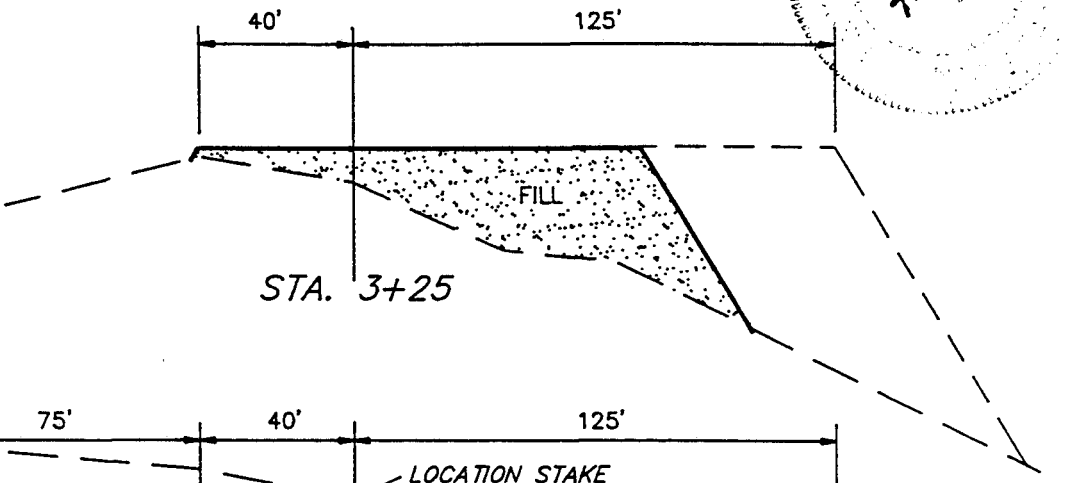
AMOCO PRODUCTION COMPANY

TYPICAL CROSS SECTIONS FOR

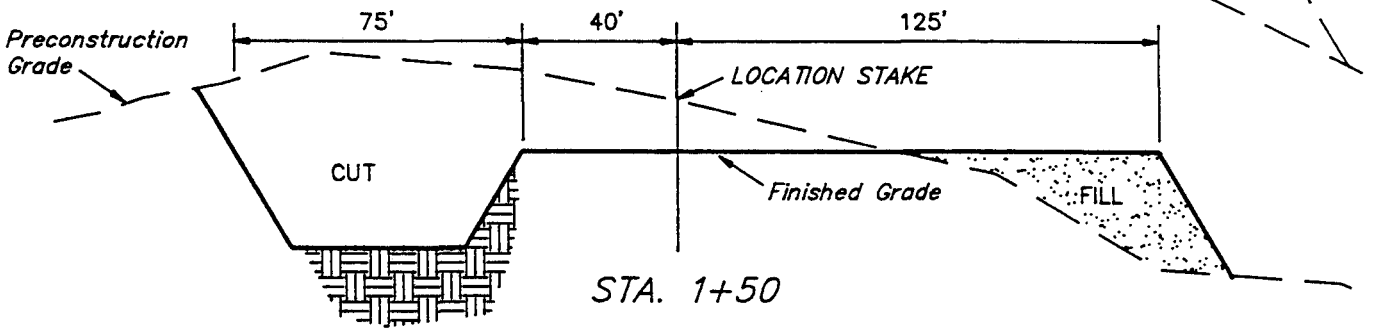
ATCHEE RIDGE 17-12-25
SECTION 17, T12S, R25E, S.L.B.&M.
2138' FNL 484' FWL

1" = 20'
X-Section Scale
1" = 50'

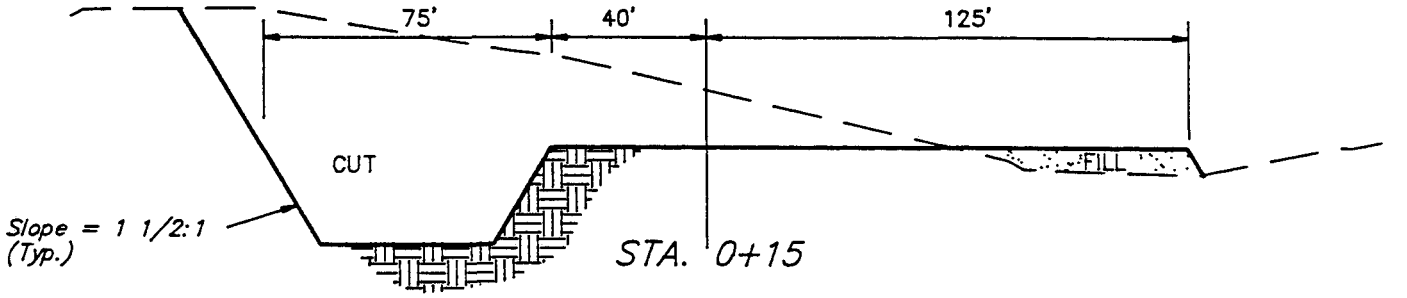
DATE: 3-30-95
DRAWN BY: D.R.B.



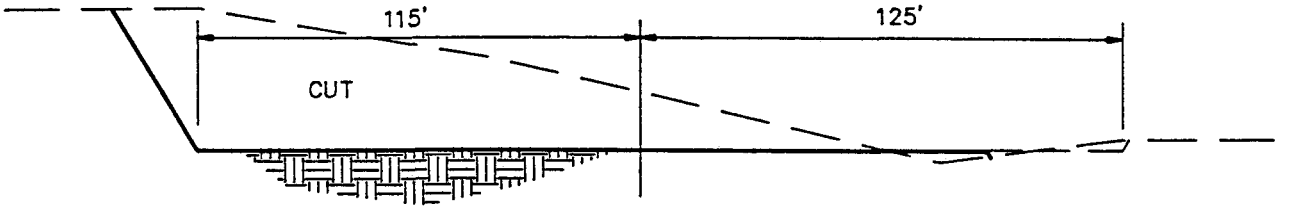
STA. 3+25



STA. 1+50



STA. 0+15



STA. 0+00

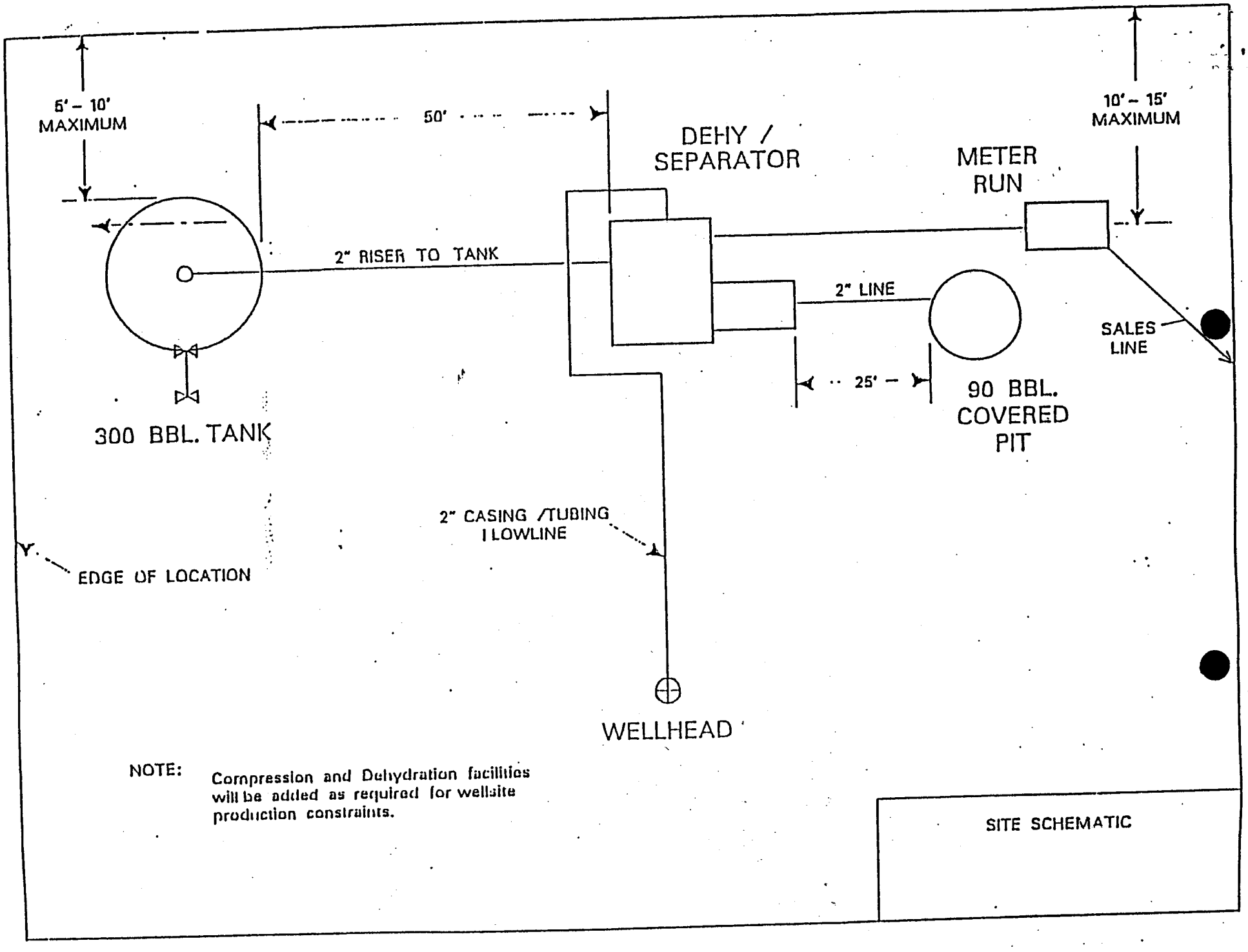
APPROXIMATE YARDAGES

CUT
(6") Topsoil Stripping = 1,220 Cu. Yds.
Remaining Location = 12,110 Cu. Yds.

TOTAL CUT = 13,330 CU.YDS.
FILL = 9,910 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION = 2,900 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = 2,900 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation) = 0 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (801) 789-1017


5' – 10'
MAXIMUM
50'
DEHY /
SEPARATOR
METER
RUN
10' – 15'
MAXIMUM
2" RISER TO TANK
2" LINE
SALES
LINE
25'
300 BBL. TANK
90 BBL.
COVERED
PIT
2" CASING /TUBING
FLOWLINE
EDGE OF LOCATION
WELLHEAD
NOTE: Compression and Dehydration facilities will be added as required for wellsite production constraints.
SITE SCHEMATIC

PICEANCE MULTIPOINT REQUIREMENTS

1. Existing Roads

A. The proposed location is staked as shown on the Certified Plat.

B. Route and distance from nearest town is identified on the form 3160-3, item #14 (also, see Exhibit A).

C. Access road(s) to location are identified on Exhibits A and B.

D. Not applicable unless exploratory well.

E. All existing roads within one-mile radius of the well site are shown on Exhibit B.

F. Improvement and/or maintenance of existing roads may be done as deemed necessary for Amoco's operations, or as required by the surface management agency.

2. Access Roads

A. Width, maximum grades and turnouts will be determined at the onsite inspection by the BLM.

B. Drainage will be used as required.

C. Size and location of culverts, if needed, will be determined at the onsite inspection or during construction.

D. Surfacing materials may be applied to the proposed road and/or location if the conditions merit it.

E. Gates and/or cattle guards will be installed at fence crossings if deemed necessary by the land owner or the surface management agency.

F. The proposed new access road is center-line flagged if applicable

3. Location of Existing Wells

A-H. All existing wells, to the best of our knowledge, are identified on Exhibit C (9 section plat).

4. Location of Existing and/or Proposed Facilities

A. All existing facilities owned or controlled by Amoco are shown on Exhibits D and E.

B. If this proposed well is productive, Amoco will own or have control of these facilities on location: storage tanks, wellhead, production unit, and if applicable, a pump jack and/or compressor. Also there will be buried production lines from the wellhead to the production unit and/or storage tanks. Amoco will submit a Sundry Notice when off-pad plans are finalized.

C. Rehabilitation, whether the well is productive or not, will be made on all unused areas in accordance with surface owner or manager approval.

5. Location and Type of Water Supply

A. Water will be obtained from a privately permitted water source secured through a contract water hauling company. It will be hauled in vacuum trucks via the access road (Exhibit A). The appropriate permits for this activity have been obtained by the water transporter.

6. Source of Construction Materials

A. - D. No off-site materials will be needed to build the proposed location or access road. Off site materials may by used if deemed necessary by Amoco and the surface management agency.

7. Methods of Handling Waste Disposal

A. Cuttings, drilling fluids, and produced fluids will be contained in the reserve pit and be allowed to evaporate. The reserve pit will be fenced on three sides and the 4th side will be fenced upon removal of the rig. The pits will be allowed to sit for 1 year to dry and then pulled as required. Produced water will be disposed of at an approved injection well or an evaporation site. Sanitary facilities and a steel mesh portable trash container will remain on location throughout drilling operations and will then be removed to a designated disposal area. The well site will be properly cleaned up upon removal of the rig.

8. Ancillary Facilities.

A. To the best of our knowledge, no ancillary facilities will be needed at this time.

9. Well Site Layout

A-C. Cross-sections, etc. - See Exhibit D. Exact location of rig related equipment will be determined when Amoco contracts a drilling rig; however, all this equipment will be contained on location. The location diagram reflects actual area of well pad. Total disturbed area will vary due to cut and fill slopes.

D. Reserve pit(s):

Will be lined with (8-10 mil reinforced plastic, size sufficient to cover pit area and fit underneath a rig tank.) or unlined. This will be as required by the surface management agency and will be determined at the onsite.

10. Plans for Restoration of Surfaces

A. Restoration of the surface will be conducted after the reserve pit has dried. The pit will then be cleaned up and back filled and the entire disturbed area will be re-contoured. The topsoil stockpile will then be uniformly placed over this area and reseeding of the site will be carried out as instructed by the appropriate management agency. Methods to protect against erosion will be employed. After final abandonment, additional restoration efforts will be applied.

11. Surface Ownership

A. The surface owner is State of Utah.

12. Other Information

A. General Description

1. Archeological clearance, topography, soil character, and flora and fauna are detailed in the archeologist's report forwarded by an approved contract archaeologist to the appropriate management agency.

2. Land uses include recreation, grazing and oil and gas development.

13. Operator's Representative and Certification

Amoco Production Company
Kurt W. Unger
Drilling Superintendent
P.O. Box 800
Denver, Colorado 80201-0800

(303) 830-6036

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by AMOCO PRODUCTION COMPANY and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date: 2 June 1995

Kurt W. Unger

Kurt W. Unger, Drilling Superintendent

Amoco Production Company

Extra Stipulations quoted by the B.L.M. "Byron Tolman, B.L.M. Officer", on the on site inspection, Wednesday, April 12, 1995.

TP CANYON #42-27-14-24 Well
Due to the Critical soils stipulations, no surface disturbing activities will be allowed during wet and muddy periods to minimize water shed and erosion damage.

To control drainage on north east side, or upstream side OF location, build drainage structure across the north east side of location with topsoil and spoil material from reserve pit to keep water off of location. No erosion control dams will be required on this project at this time.

No pit liner will be required at this time, but a B.L.M. Officer will inspect the pit after construction and determine if one is needed.

ATCHEE RIDGE #12-17-12-25 Well
Put trees and slash on south side of reserve pit next to main road, so the public will have access to the trees pushed off of the location during construction for firewood.

No pit liner is required at this time, but a B.L.M. Officer will inspect the pits after construction and determine if one is needed.

BOULEVARD RIDGE #24-24-13-24
Due to deer and elk wintering stipulations, no surface disturbing activities, drilling or completion activities will be allowed between November 1, and March 31, unless a waiver to this stipulation is received in writing from the B.L.M.

Due to the critical soils stipulation, no surface disturbing activities will be allowed during wet and muddy periods to minimize water shed and erosion damage. No erosion control dams will be required on this project at this time.

A right of way will be necessary for access roads located outside of the lease. (see plat) (plat has to be included in APD)

No pit liner is required at this time, but a B.L.M. Officer will inspect the pits after construction and determine if one is needed.

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

July 14, 1995

Amoco Production Company
P. O. Box 800
Denver, Colorado 80201

Re: Amended Approval - Atchee Ridge State #17-12-25 Well, 2138' FNL, 484' FWL, SW NW, Sec. 17, T. 12 S., R. 25 E., Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-32707.

Sincerely,

R. J. Firth
Associate Director

ldc
Enclosures
cc: Uintah County Assessor
Bureau of Land Management, Vernal District Office
WAPD

Operator: Amoco Production Company

Well Name & Number: Atchee Ridge State 17-12-25

API Number: 43-047-32707

Lease: State ML-46716

Location: SW NW **Sec.** 17 **T.** 12 S., **R.** 25 E.

Conditions of Approval

1. General
   Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements
   Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

   Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

3. Reporting Requirements
   All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Onsite Inspection
   Compliance with the requirements and stipulations of the On-site Predrill Evaluation and Review.

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

September 12, 1996

Julie Acevedo
Amoco Production Company
P.O. Box 800
Denver, Colorado 80201

Re: Atchee Ridge State 17-12-25 Well, Sec. 17, T. 12 S., R. 25 E., Uintah County, Utah, API No. 43-047-32707

Dear Ms. Acevedo:

Due to excessive time delay in commencing drilling operations, approval to drill the subject well is hereby rescinded, effective immediately.

Please note that a new Application for Permit to Drill must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

Don Staley
Administrative Manager
Oil and Gas

lwp

cc: R. J. Firth, Associate Director
K. M. Hebertson
Well file

WO1219